

REMARKS

The Office Action dated September 12, 2003 has been reviewed and carefully considered. Claims 1-12 are pending, of which claims 1 and 8-11 are the independent claims. Reconsideration in view of the following remarks is respectfully requested.

Claims 1 and 8-11 stand rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent 6,331,989 to Tezuka in view of U.S. Patent No. 5,121,205 to Ng et al. ("Ng").

Tezuka discloses the time-division multiplexing of source signals and the demultiplexing of the multiplexed signal into the source signals.

As item 2 of the Office Action acknowledges, Tezuka fails to disclose a "introducing an auxiliary signal with a variable length dependent on the aggregate rate of the source signal."

Although the applicant concurs with this statement, and although it would not alter the ultimate conclusion reached by the analysis that is to follow below, the applicant wishes to state on the record, for clarity, that the actual language of claim 1 is "introducing a variable length auxiliary signal into the multiplex signal, the length of the variable length auxiliary signal being dependent on an aggregate rate of the source signals to be transmitted."

The applicant believes that it is fair to say that that item 2 of the Office Action agrees, in effect, that Tezuka fails to disclose the latter-quoted limitation of claim 1.

The applicant points out, in any event, that, although item 2 seems to suggest that the Tezuka sync pattern might be deemed to correspond to the variable length auxiliary signal of claim 1, Tezuka fails to disclose or suggest that the sync pattern is variable length. In fact, Tezuka mentions, as an example, that the sync pattern constitutes a byte (col. 5, lines 43-44) which is fixed length. Moreover, the sync pattern does not have a length that is disclosed or suggested in Tezuka as “being dependent on an aggregate rate of the source signals to be transmitted” which the language of claim 1 explicitly requires.

Ng is directed to an auxiliary signal (FIG. 1, (A)) of fixed length (col. 2, line 26: “eleven bit”; line 32: “fixed”) having variable length image data (FIG. 1 (D) “LUMINANCE.”

Item 2 cites “flag/control information” as the “variable length auxiliary signal” of claim 1. This presumably refers to some flag and/or control information disclosed in Ng. However, the only flags in Ng appear to be the 11-bit sync flag, the 9-bit field flag and the 9-bit line block flag (FIG. 1.), which are not variable length.

The auxiliary signal A in Ng is not disclosed as being multiplexed with the main signal until their separate arrivals at the destination (FIG. 5, ref. nos. 515, 530), at which point the main signal is appropriately delayed so that the combining of respective portions of both signals is synchronized (col. 3, lines 26-30). In particular, therefore, Ng is directed to time synchronizing, at the receiver, a main signal and an auxiliary signal.

Tezuka, by contrast, relates not to time synchronizing at the receiver, but to efficient assignment of each demultiplexed signal at the receiver to its respective destination channel. A predetermined sync pattern within one of the signals to be

multiplexed is detected at a predetermined one of the destination channels. If the predetermined destination channel detects from the sync pattern that its respective signal is appropriate to that destination, no corrective action is taken. If, on the other hand, it is not appropriate, a bit rotate signal X (first embodiment) or a switch 17 (second embodiment) reconfigures the routing of the demultiplexed signals to their correct destination channels, after the needed number of iterations of this process are executed.

It is not clear what disclosure of Ng could serve as a proper basis for modifying Tezuka, at least because their respective demultiplexing goals and methodologies fundamentally differ.

Item 2 of the Office Action cites col. 3, lines 26-30 and FIG. 1 of Ng for the proposition that “the main signal is delayed relative to the auxiliary signal to ensure synchronism when the signals are ultimately combined due to the time required for transmitting and decoding the variable length codes of the data compressed auxiliary signal.” The variable length codes referred to in the quote are the above-mentioned “LUMINANCE” fields (FIG. 1 (D)), and, as a consequence, the video blocks (FIG. 1 (B)), although the auxiliary signal (A) is fixed-length.

Once again, however, it is not clear how Ng time synchronization of a main signal and its auxiliary signal relates to or serves as a basis for modifying the demultiplexing signal-to-channel rerouting methodology of Tezuka.

Even if some reason could be found to make a Tezuka/Ng combination, it is unclear how such a combination could fairly or properly be characterized as “introducing a variable length auxiliary signal into the multiplex signal, the length of the variable

length auxiliary signal being dependent on an aggregate rate of the source signals to be transmitted.”

In asserting purported motivation to combine Tezuka and Ng, item 2 of the Office Action states “Varying the sync pattern (i.e. auxiliary signal) will not overload the multiplexing length.” This statement appears to be an attempt to quote from the applicant’s specification (page 1, lines 25-27: “By making the length of the field carrying the auxiliary signal dependent on the aggregate rate of the source signals to be transmitted, it becomes possible to create more space for transmitting source signals during periods when it is needed.”) Alternatively, the statement may amount to nothing less than impermissible hindsight gained from reading the applicant’s disclosure. It is not clear, however, what quoting from the applicant’s specification, or engaging in impermissible hindsight, has to do with finding prior art and applying it in rejecting claims of the instant application.

For at least all of the above reasons, the references, alone or in combination, fail to anticipate or render obvious the invention as recited in claim 1.

As to claims 8-11, they likewise recite the same above-quoted limitation as claim 1, and are patentable over the references for at least the same reasons.


The rejections of the dependent claims rely on U.S. Patent 6,529,528 to Park, U.S. Patent 6,233,251 to Kurobe et al. (“Kurobe”) and U.S. Patent No. 5,920,572 to Washington et al. (“Washington”), but Park, Kurobe and Washington, alone or in combination, cannot compensate for the deficiencies in Tezuka and Ng.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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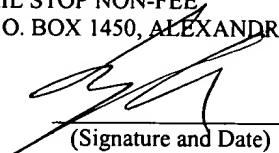

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